<u>AMENDMENTS TO THE CLAIMS</u>

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented):   A method comprising:

storing authorization data that defines an access control attribute and an associated regular expression specifying a textual pattern, wherein the access control attribute is a coarse-grain access control attribute defining access control rights for a resource provided by a device;

receiving a command from a client, wherein the command requests access to configuration data for the resource of the device;

evaluating the command using the regular expression to determine whether the command matches the textual pattern; and

controlling access to the configuration data by the client based on the coarse-grain access control attribute and the evaluation of the regular expression.

Claim 2 (Previously Presented):   The method of claim 1, wherein controlling access comprises allowing access to the configuration data when the access control attribute denies access to the resource and the textual pattern of the regular expression matches the command.

Claim 3 (Previously Presented):   The method of claim 1, wherein controlling access comprises denying access to the configuration data when the access control attribute grants access to the resource and the textual pattern of the regular expression matches the command.

Claim 4 (Original):   The method of claim 1, wherein storing authorization data comprises storing the authorization data as an authorization class that conforms to a class syntax.

Claim 5 (Cancelled).

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Claim 6 (Currently Amended):   The method of claim 1, wherein the coarse-grain access control attribute comprises a set of permission bits, and each of the permission bits is associated with a respective group of the resources within the network device.

Claim 7 (Previously Presented):   The method of claim 1, further comprising receiving the command from the client via a command line interface.

Claim 8 (Original):   The method of claim 7, wherein evaluating the command comprises evaluating the command in real-time while the client inputs the command via the command line interface.

Claim 9 (Original):   The method of claim 1, wherein the configuration data is arranged in the form of a multi-level configuration hierarchy having a plurality of objects, and each of the objects represents a portion of the configuration data that relates to one or more resources of the device.

Claim 10 (Original):   The method of claim 9, wherein the objects have respective textual labels and the regular expression defines the textual pattern to match the textual labels of a set of one or more of the objects within the configuration hierarchy.

Claim 11 (Original):   The method of claim 10, wherein evaluating the command comprises applying the regular expression to the command to determine whether the command specifies any of the objects within the set.

Claim 12 (Original):   The method of claim 9, further comprising pre-processing the regular expression to automatically insert one or more meta-characters into the regular expression based on the hierarchical arrangement of the configuration data.

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Claim 13 (Previously Presented): The method of claim 9, further comprising pre-processing the regular expression so that the command is evaluated with the regular expression in real-time as the client enters the command.

Claim 14 (Original): The method of claim 13, wherein evaluating the command comprises evaluating the command with the pre-processed regular expression each time the client enters a token indicating a textual break within the command.

Claim 15 (Original): The method of claim 1, wherein controlling access comprises controlling access to configuration data of a router.

Claim 16 (Withdrawn): A method comprising:

storing configuration data for a device, wherein the configuration data is arranged in the form of a multi-level configuration hierarchy having a plurality of objects, each of the objects having a textual label and representing a portion of the configuration data;

storing authorization data defining an access control attribute and an associated regular expression defining a textual pattern that identifies a set of one or more of the objects within the configuration hierarchy;

applying the regular expression to a command to determine whether the command requests access to any of the objects within the set; and

controlling access to configuration data of the device based on the determination.

Claim 17 (Withdrawn): The method of claim 16, wherein controlling access comprises allowing a client to access to the configuration data represented by the objects requested by the command.

Claim 18 (Withdrawn): The method of claim 16, wherein controlling access comprises denying a client access to the configuration data represented by the objects requested by the command.

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Claim 19 (Original): A method comprising:

receiving input defining an access control attribute and an associated regular expression that specifies a textual pattern;

pre-processing the regular expression to automatically insert one or more meta-characters into the regular expression;

evaluating a command in real-time using the regular expression as a client enters the command via a command line interface; and

controlling access to configuration data of a device based on the evaluation.

Claim 20 (Original): The method of claim 19, further comprising storing the configuration data in the form of a multi-level configuration hierarchy having a plurality of objects, wherein pre-processing the regular expression comprises automatically inserting one or more meta-characters into the regular expression based on the hierarchical arrangement of the configuration data.

Claim 21 (Original): The method of claim 19, the regular expression defines a textual pattern that identifies one or more of the objects within the configuration hierarchy, and evaluating the command comprises:

applying the regular expression in real-time to determine whether a portion of the command that has been entered by the client matches the textual pattern; and

selectively allowing the client to complete the command based on the determination.

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Claim 22 (Previously Presented): A computer-readable medium comprising instructions for causing a programmable processor to:

store authorization data that defines an access control attribute and an associated regular expression defining a textual pattern, wherein the access control attribute is a coarse-grain access control attribute defining access control rights for resources provided by a device;

receive the command from a client, wherein the command requests access to configuration data of the device;

evaluate the command using the regular expression to determine whether the command matches the textual pattern; and

control access to the configuration data by the client based on the coarse-grain access control attribute and the evaluation of the regular expression.

Claim 23 (Original): The computer-readable medium of claim 22, further comprising instructions to cause the programmable processor to allow access to the configuration data when the textual pattern of the regular expression matches the command.

Claim 24 (Original): The computer-readable medium of claim 22, further comprising instructions to cause the programmable processor to deny access to the configuration data when the textual pattern of the regular expression matches the command.

Claim 25 (Cancelled).

Claim 26 (Previously Presented): The computer-readable medium of claim 22 , wherein the coarse-grain access control attribute comprises a set of permission bits, and each of the permission bits is associated with a respective group of the resources.

Claim 27 (Previously Presented): The computer-readable medium of claim 22, further comprising instructions to cause the programmable processor to receive the command from the client via a command line interface.

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Claim 28 (Original): The computer-readable medium of claim 27, further comprising instructions to cause the programmable processor to evaluate the command in real-time while the client inputs the command via the command line interface.

Claim 29 (Original): The computer-readable medium of claim 22, wherein the configuration data is arranged in the form of a multi-level configuration hierarchy having a plurality of objects, and each of the objects represents a portion of the configuration data that relates to one or more resources of the device.

Claim 30 (Original): The computer-readable medium of claim 29, wherein the objects have respective textual labels and the regular expression defines the textual pattern to match the textual labels of a set of one or more of the objects within the configuration hierarchy.

Claim 31 (Original): The computer-readable medium of claim 30, wherein further comprising instructions to cause the programmable processor to apply the regular expression to the command to determine whether the command specifies any of the objects within the set.

Claim 32 (Original): The computer-readable medium of claim 29, further comprising instructions to cause the programmable processor to pre-process the regular expression to automatically insert one or more meta-characters into the regular expression based on the hierarchical arrangement of the configuration data.

Claim 33 (Original): The computer-readable medium of claim 29, further comprising instructions to cause the programmable processor to receive the command from a client via a command line interface, and pre-process the regular expression so that the command is evaluated with the regular expression in real-time as the client enters the command.

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Claim 34 (Original): The computer-readable medium of claim 33, further comprising instructions to cause the programmable processor to evaluate the command with the pre-processed regular expression each time the client enters a token indicating a textual break within the command.

Claim 35 (Original): The computer-readable medium of claim 22, further comprising instructions to cause the programmable processor to control access to configuration data of a router.

Claim 36 (Withdrawn):   A device comprising:

    a computer-readable medium storing configuration data and authorization data, wherein the authorization data defines an access control attribute and an associated regular expression specifying a textual pattern; and

    a management interface that receives a text-based command to access the configuration data, wherein the management interface evaluates the command using the regular expression and controls access to the configuration data based on the evaluation.

Claim 37 (Withdrawn):   The device of claim 36, wherein the management interface allows access to the configuration data when the textual pattern of the regular expression matches the command.

Claim 38 (Withdrawn):   The device of claim 36, wherein the management interface denies access to the configuration data when the textual pattern of the regular expression matches the command.

Claim 39 (Withdrawn):   The device of claim 36, wherein the authorization data includes a coarse-grain access control attribute defining access control rights for respective groups of resources provided by the device, and the management interface controls access to the configuration data based on the coarse-grain access control attribute and the evaluation of the regular expression.

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Claim 40 (Withdrawn):   The device of claim 39, wherein the coarse-grain access control

attribute comprises a set of permission bits, and each of the permission bits is associated with a

respective group of the resources.

Claim 41 (Withdrawn):   The device of claim 36, wherein the configuration data is arranged

in the form of a multi-level configuration hierarchy having a plurality of objects, and each of the

objects represents a portion of the configuration data that relates to one or more resources of the

device.

Claim 42 (Withdrawn):   The device of claim 41, wherein the objects have respective textual

labels and the regular expression defines the textual pattern to match the textual labels of a set of

one or more of the objects within the configuration hierarchy.

Claim 43 (Withdrawn):   The device of claim 42, wherein the management interface applies

the regular expression to the command to determine whether the command specifies any of the

objects within the set.

Claim 44 (Withdrawn):   The device of claim 42, wherein the management interface pre-

process the regular expression to automatically insert one or more meta-characters into the

regular expression based on the hierarchical arrangement of the configuration data.

Claim 45 (Withdrawn):   The device of claim 36, wherein the management interface

comprises a command line interface to receive the command from a client, and the management

interface evaluates the command with regular expression in real-time as the client enters the

command.

Claim 46 (Withdrawn):   The device of claim 45, wherein the management interface

evaluates the command with the regular expression each time the client enters a token indicating

a textual break within the command.

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Claim 47 (Withdrawn): The device of claim 36, wherein the device comprises a router.

Claim 48 (Withdrawn): A device comprising:

a computer-readable medium comprising:

configuration data arranged in the form of a multi-level configuration hieracrchy having a plurality of objects, each of the objects having a textual label and representing a portion of the configuration data, and

authorization data that defines an access control attribute and an associated regular expression specifying a textual pattern, wherein the textual pattern identifies a set of one or more of the objects within the configuration hierarchy; and

a management interface that applies the regular expression to a command to determine whether the command requests access to any of the objects within the set, and controls access to the configuration data based on the determination.

Claim 49 (Withdrawn): The device of claim 48, wherein based on the determination the management interface allows a client to access to the configuration data represented by the objects requested by the command.

Claim 50 (Withdrawn): The device of claim 48, wherein based on the determination the management interface denies a client access to the configuration data represented by the objects requested by the command.

Claim 51 (Withdrawn): A device comprising:

a computer-readable medium that stores configuration data, and

a management interface that receives input defining an access control attribute and an associated regular expression that specifies a textual pattern, wherein

the management interface pre-processes the regular expression to automatically insert one or more meta-characters into the regular expression, and stores the access control attribute and the pre-processed regular expression as authorization data to control access to the configuration data.

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Claim 52 (Withdrawn):   The device of claim 51, wherein the management interface further

comprises a command line interface to receive a command from a client, wherein the

management interface evaluates the command in real-time using the pre-processed regular

expression as the client enters the command.

Claim 53 (Withdrawn):   A device comprising:

        a computer-readable medium storing configuration data and authorization data, wherein

the authorization data defines:

            a fine-grain access control attribute and an associated regular expression

        specifying a textual pattern, and

            a coarse-grain access control attribute that defines access control rights for

        respective groups of resources provided by the device; and

            a management interface that evaluates a command received from a client using the

regular expression of the fine-grain access control attribute, and controls access to the

configuration data based on the course-grain access control attribute and the evaluation of the

command.

Claim 54 (Withdrawn):   The device of claim 53, wherein the management interface allows

access to the configuration data when the course-grain access control attribute does not allow

access to a requested portion of the configuration data and the regular expression of the fine-

grain access control attribute identifies a match between the command and the textual pattern.

Claim 55 (Withdrawn):   The device of claim 53, wherein the management interface denies

access to the configuration data when the course-grain access control attribute allows access to a

requested portion of the configuration data and the regular expression of the fine-grain access

control attribute identifies a match between the command and the textual pattern.

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Claim 56 (New):   The method of claim 1, wherein a resource is at least one of a present configuration of the device, policies and relationships with other devices, a configuration of an interface card of the device, a parameter for network protocols supported by the device, a specification for a physical component within the device, information maintained by the device, a software module executing on the device, device chassis inventory, device system parameters, routing policies, forwarding options, network flow statistics, error logs, user information, or performance metrics.